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DATE MAILED: 11/10/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,341	07/14/2001	Trevor Yann	655/62437	3754
7590 11/10/2004			EXAMINER	
Richard F. Jaworski			NORRIS, TREMAYNE M	
Cooper & Dunham LLP 1185 Avenue of the Americas			ART UNIT	PAPER NUMBER
New York, NY 10036			2137	

Please find below and/or attached an Office communication concerning this application or proceeding.

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  **Eastenions of an entry be switched with the procession of 37 CFR 1.13(s), in no event, however, may a reply be timely filled  **Eastenions of an entry be switched and the procession of 37 CFR 1.13(s), in no event, however, may a reply be timely filled  **It the particle for reply a specified above is less than trirty (30) days, a reply within the statutory minimum of thing (30) days will be considered timely.  **It has been defined from spin a specified above is less than trirty (30) days, a reply within the statutory minimum of thing (30) MAINTON from the mailing date of this communication.  **It has been defined from spin a specified above is less than trirty (30) days, a reply within the statutory minimum of thing (30) MAINTON from the mailing date of this communication.  **Any reply received by the Office later than the mailing date of this communication.  **Any reply received by the Office later than the mailing date of this communication.  **Any reply received by the Office later than the mailing date of this communication.  **Any reply received by the Office later than the mailing date of this communication.  **Any reply received by the Office later than the mailing date of this communication.  **The Carlot of This action is FINAL.  **DESTITUTE of This action is non-final.  **Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  **Disposition of Claims**  **Application of Claims**  **Disposition of Claims**  **Application is application in the application.  **Application for the above claim(s)				()
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Application/Control Number: 09/905,341

Art Unit: 2137

## **DETAILED ACTION**

## Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Nachenberg et al (US pat 5,826,013).

Regarding claim 1, Nachenberg teaches a method of detecting polymorphic viral code in a computer program, comprising the steps of:

- (a) emulating a first predetermined number of instructions of the computer program (col.6 lines 45-48);
- (b) collecting information corresponding to a state of a plurality of registers and/or flags after each emulated instruction execution (col.9 lines 24-32; col.12 line 64 thru col.13 line 10); and
- (c) determining a probability that the computer program contains polymorphic viral code based on an heuristic analysis of the collected register/flag state information (col.3 lines 37-53; col.9 lines 24-32; col.12 line 64 thru col.13 line 10).

Application/Control Number: 09/905,341

Art Unit: 2137

Regarding claim 2, Nachenberg teaches emulating a second predetermined number of instructions if the probability determined in step (c) is above a predetermined threshold, wherein the second predetermined number of instructions is greater than the first predetermined number of instructions (col.3 lines 37-53).

Regarding claim 3, Nachenberg teaches the second predetermined number of instructions corresponds to execution of a polymorphic decryptor (col.8 lines 51-65).

Regarding claim 4, Nachenberg teaches monitoring the plurality of registers and/or flags for improper register/flag usage (col.3 lines 37-53; col.9 lines 24-32; col.12 line 64 thru col.13 line 10).

Regarding claim 5, Nachenberg teaches maintaining, for each of the plurality of registers and/or flags, a corresponding count of a number of times that the register/flag was improperly used during the emulation of instructions in step (a) (col.3 lines 44-53).

Regarding claim 6, Nachenberg teaches monitoring operand values of the instructions emulated in step (a) (col.3 lines 37-53; col.9 lines 24-32; col.12 line 64 thru col.13 line 10).

Regarding claim 7, Nachenberg teaches detecting when operand value of an instruction which is set is not used by the instruction (col.9 lines 24-32; col.11 lines 23-28).

Regarding claim 8, Nachenberg teaches detecting when an undefined operand of an instruction is used by the instruction (col.3 lines 1-36).

Claim 9 is a program storage device claim that is substantially equivalent to method claim 1, therefore claim 9 is rejected for the same reasons.

Claim 10 is a computer system claim that is substantially equivalent to program storage claim 9, therefore claim 10 is rejected for the same reasons.

Claim 11 is a computer data signal claim that is substantially equivalent to program storage claim 9, therefore claim 11 is rejected for the same reasons.

Claim 12 is an apparatus claim that is substantially equivalent to program storage claim 9, therefore claim 12 is rejected for the same reasons.

Apparatus claims 13-19 are substantially equivalent to method claims 2-8 respectively, therefore claims 13-19 are rejected for the same reasons.

Art Unit: 2137

## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tremayne M. Norris whose telephone number is (571) 272-3874. The examiner can normally be reached on M-F 7:30AM-5:00PM alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andreus Caldwell

Tremayne Norris

October 29, 2004